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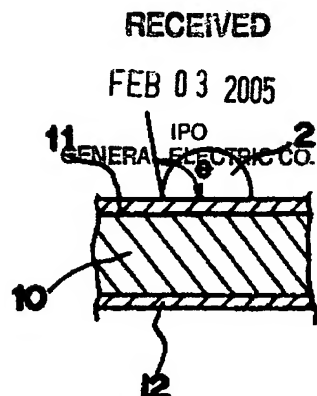
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TITLE : ANTI-CLOUDING MIRROR



ABSTRACT : **PURPOSE:** To reduce the amount of drops of water stuck to a mirror, to prevent deterioration in visibility and to make the coating of the mirror with an anti- clouding soln. unnecessary by forming a transparent anti-clouding thin film made of a hydrophobic plasma-polymerized film on the front side of the glass of the mirror.

CONSTITUTION: A transparent anti-clouding thin film 11 made of a hydrophobic plasma-polymerized film having groups such as $-\text{CH}_2$, $-\text{C}_6\text{H}_5$, $-\text{CF}_2$ or $-\text{R}$ (alkyl) is formed on the front side of glass 10. A reflecting film 12 is formed on the rear side of the glass 10. The anti-clouding thin film is transparent and has several hundred-few thousand \AA thickness. The hydrophobic plasma-poly merized film is produced by plasma-polymerizing a hydrophobic monomer having a group such as $-\text{CH}_2$, $-\text{C}_6\text{H}_5$, $-\text{CF}_2$ or $-\text{R}$ (alkyl), e.g., an olefinic compound, a fluorine compound or a silicon compound. Since the anti-clouding thin film 11 is hydrophobic, the contact angle θ between a drop 2 of water and the film 11 is large, so the drop 2 is readily rounded and repelled without spreading on the surface of the film 11. The film 11 repels drops of water reaching the surface of an outer mirror in a rainy day and prevents the sticking of the drops.

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